operators as the laminate used in the rescue boat. The number of samples used for each test, and the conditions and test methods used, must be as described in the applicable test specified in this paragraph.

(i) *Weight.* The weight of each FRP section, such as hull, canopy, and inner liner, must be within 10 percent of similar sections of the prototype rescue boat. These weights must be the bare laminate weights. Backing plates that are molded into the laminate may be included.

(ii) *Thickness.* The average thickness of each section of sprayed-up laminate must be within 20 percent of the corresponding sections of the prototype.

(iii) *Resin content.* Laminate samples from the hull, canopy, and inner liners must be tested in accordance with ASTM D 2584 or ISO 1172 (incorporated by reference, see §160.156–5 of this subpart). The resin content must be within 8 percentage points of the prototype results. If the resin content does not comply, flexural ultimate strength and tensile tests in paragraph (e)(1)(iv) of this section must be conducted.

(iv) *Flexural ultimate strength and tensile tests.* Each laminate sample from each major component, such as hull and liner, that does not comply with the resin content requirement in paragraph (e)(1)(iii) of this section, and from each component of every fifth production rescue boat, must be subjected to the flexural ultimate strength and tensile strength tests as described in §160.156–11(c)(2)(i)(B) of this subpart. The values must be at least 90 percent of the prototype results.

(v) *Buoyancy material.* If block foam buoyancy material is used, each piece must be weighed after it is cut and shaped to make sure that the correct amount of foam is installed. If foamed-in-place buoyancy material is used, a separate sample of the foam must be poured, and used to make a density determination after it has set. The density must be 32 ±8 kg/m^3 (2 ±0.5 lb/ft^3).

(vi) *Steel sheet and plate.* Steel sheet and plate for the hull, floors, and other structural components must meet ASTM A 36 and ASTM A 653 as applicable (incorporated by reference, see §160.156–5 of this subpart). Non-corrosive resistant steel must meet the coating mass and bend tests requirement specified under ASTM A 653. Compliance for this paragraph can be ascertained through supplier's certification papers or through conducting actual tests.

(vii) *Fabric.* The coated fabric for inflatable collars, when used, for the construction of each rescue boat must meet ISO 15372 (incorporated by reference, see §160.156–5 of this subpart). This compliance can be ascertained through a supplier's certification papers or through witnessing actual tests.

(viii) *Fuel tank.* Each fuel tank must be tested by a static head above the tank top of 3 m (10 ft) of water without showing any leaks or signs of permanent distortion.

(ix) *Welding.* It must be determined that structural components joined by welding was performed by welders who are appropriately qualified and that the welding procedure and materials are as per the plans approved under §160.156–13(h) of this subpart.

(2) *Post assembly tests and inspections.* The finished rescue boat must be visually inspected inside and out. The manufacturer must develop and maintain a visual inspection checklist designed to ensure that all applicable requirements have been met and the rescue boat is equipped in accordance with approved plans. At a minimum, each rescue boat must be operated for 2 hours, during which all rescue boat systems must be exercised.

§160.156–17 Marking and labeling.

(a) Each rescue boat must be marked with a plate or label permanently affixed to the hull in a conspicuous place readily accessible for inspection and sufficiently durable to withstand continuous exposure to environmental conditions at sea for the life of the rescue boat.

(b) The plate or label must be in English, but may also be in other languages.

(c) The plate or label must contain the—

(1) Name and address of the manufacturer;

(2) Manufacturer's model identification;

(3) Name of the independent laboratory that witnessed the prototype or production tests;
(4) Serial number of the rescue boat;
(5) U.S. Coast Guard approval number;
(6) Month and year of manufacture;
(7) Material of hull construction;
(8) Number of persons for which the rescue boat is approved;
(9) Light load and full load (condition A and condition B weight); and
(10) Word ''SOLAS.''

§ 160.156–19 Operating instructions and information for the ship's training manual.

(a) Each rescue boat must have instructions and information for the ship's training manual, that use the symbols from IMO Res. A.760(18) (incorporated by reference, see § 160.156–5 of this subpart) to describe the location and operation of the rescue boat.

(b) The instructions and information required by paragraph (a) of this section may be combined with similar material for survival craft and rescue boats, and their launching systems.

(c) The rescue boat manufacturer must make the instructions and information required by paragraph (a) of this section available—

(1) In English to purchasers of a rescue boat approved by the Coast Guard; and

(2) In the form of an instruction placard providing simple procedures and illustrations for operation of the rescue boat. The placard must be not greater than 36 cm (14 in) by 51 cm (20 in), and must be made of durable material and suitable for display near installations of rescue boats on vessels.

§ 160.156–21 Operation and maintenance instructions.

(a) In order to comply with SOLAS, each rescue boat must have operation and maintenance instructions that—

(1) Follows the general format and content specified in MSC.1 Circ. 1205 (incorporated by reference, see § 160.156–5 of this subpart); and

(2) Includes a checklist for use in monthly, external inspections of the rescue boat.

(b) The rescue boat manufacturer must make the manual required by paragraph (a) of this section available in English to purchasers of a rescue boat approved by the Coast Guard.

(c) The operation and maintenance instructions required by paragraph (a) of this section may be combined with similar material for survival craft and rescue boats, and their launching systems.

§ 160.156–23 Procedure for approval of design, material, or construction change.

(a) Each change in design, material, or construction from the plans approved under 46 CFR 159.005–13 and § 160.156–13(h) of this subpart must be approved by the Commandant before being used in any production rescue boat. The manufacturer must submit any such change following the procedures set forth in § 160.156–9 of this subpart, but documentation on items that are unchanged from the plans approved under 46 CFR 159.005–13 and § 160.156–13(h) of this subpart need not be resubmitted.

(b) Unless determined by the Commandant to be unnecessary, a prototype rescue boat with each change described in paragraph (a) of this section must be made and tested according to the procedures for new approvals in §§ 160.156–9 through 160.156–13 of this subpart.

(c) Determinations of equivalence of design, construction, and materials will be made by the Commandant only.

Subpart 160.170—Davit-Launched Liferaft Automatic Release Hooks (SOLAS)

SOURCE: USCG–2010–0048, 76 FR 63007, Oct. 11, 2011, unless otherwise noted.

§ 160.170–1 Scope.

This subpart prescribes standards, tests, and procedures for seeking Coast Guard approval of an automatic release mechanism complying with SOLAS and the IMO LSA Code, for use with davit-launched liferafts approved under subparts 160.051 or 160.151 of this part, and single-fall rescue boats approved under subpart 160.156 of this part.